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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,477	01/20/2006	Misao Konishi	117454-002	9910
24573	7590	01/09/2009		
BELF., BOYD & LLOYD, LLP				
P.O. Box 1135				
CHICAGO, IL 60690				
EXAMINER				
NGUYEN, TRI V				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
01/09/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,477

Applicant(s)

KONISHI, MISAO

Examiner

TRI V. NGUYEN

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-19 is/are pending in the application.
- 4a) Of the above claim(s) 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-12 and 14-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/ISD)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 12/29/08

DETAILED ACTION

Response to Amendment

1. Upon entry of the amendment filed on 10/20/08, Claim 13 is withdrawn and the currently pending claims considered below are Claims 8-12 and 14-19.

In view of applicants' remarks, the objection regarding the IDS is withdrawn and the entry for the 10016041 reference has been considered. Furthermore, it is noted that the 102 rejections, the 103 rejection of claims 8-11, 14-17 and 19 based on the Soken Chem reference and the 103 rejection of claims 8-12 and 14-19 based on Yamada et al. in view of Soken Chem or Mitsubishi or Travis are withdrawn; however, the 103(a) rejections based on the Wakiya are maintained.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 8, 9, 11, 12, 14, 15 and 17-19 rejected under 35 U.S.C. 103(a) as obvious over Wakiya et al. (WO/2002/035555 - the US equivalent 2004/0109995 is cited from hereon).

Wakiya et al. disclose a conductive coated particle that includes a metallic core that is surface treated with a carboxyl containing resin that is treated with an aziridine based agent (abstract, § 5-8, 12, 15-18, 30 and examples starting §54). Furthermore, Wakiya et al. disclose the features of a acrylic-styrene, epoxy and poly(meth)acrylic acid resin (§ 21) and an anisotropic conductive film which is construed to meet the limitation of adhesive (§2).

However, the Wakiya et al. disclosure is insufficient to anticipate the above listed claims such as selection of a specific element, e.g. a functional group or a resin, it would have

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nonetheless been obvious to the skilled artisan to achieve the synthesis composition, as the reference teaches each of the claimed ingredients for the same utility and such modifications are recognized as being well within the purview of the skilled artisan to yield predictable results.

4. Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakiya et al. in view of Soken Chem (JP 08-325543), Mitsubishi (JP 09-030112) or Travis (US 3,985,920).

Wakiya et al. disclose the invention of claim 8 but Yamada et al. do not explicitly disclose the specific aziridine surface treatment. In an analogous art, Soken Chem, Mitsubishi or Travis discloses the features of surface treating a particle with applicants' aziridine compound is well-known (Soken Chem: §42-46), Mitsubishi: § 126, 127 and 139 and Travis: col 3, lines 29-41). Wakiya et al. invite such enhancement by teaching that the aziridine technique is well known (§ 30). One of ordinary skill in the art would have recognized that applying the known technique of surface treating with an aziridine compound would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the aziridine cross-linking technique to the teachings of Wakiya et al. would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to employ such features into similar systems. Further, the use of an aziridine would have been recognized by those of ordinary skill in the art as resulting in an improved composition that would allow for enhanced cross-linking and coupling properties.

Response to Arguments

5. Applicant's arguments filed 10/20/08 have been fully considered but they are not persuasive.

Applicants argue that the Wakiya references teaches partial surface modification unlike applicants' claimed invention of adsorption of the insulating resin and the surface treatment with the polyfunctional arizidine compound (page 5). The examiner respectfully disagrees and notes that the broadest reasonable interpretation of the instant claims include partial coating – it is noted that structural parameters such as wholly, complete and uniform coating are absent from the instant claims. Furthermore, it would be reasonable to construe the arizidine treatment being in situ or post coating; since Wakiya teaches the feature of the aziridine technique, it would have been obvious to a skilled artisan to gain the benefit of cross-linkage via the arizidine treatment as taught by the Soken Chem, Mitsubishi or Travis references. Regarding the type of bonding, it is noted that the instant claims are silent regarding the bonding between the insulating resin and the particle.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRI V. NGUYEN whose telephone number is (571)272-6965. The examiner can normally be reached on M-F 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. V. N./
Examiner, Art Unit 1796
January 9, 2009

/Mark Kopec/
Primary Examiner, Art Unit 1796